UTAH GEOLOGICAL AND MINERAL SURVEY
UTAH DEPARTMENT OF NATURAL RESOURCES
in cooperation with
THE UNITED STATES GEOLOGICAL SURVEY

Published and sold by
UTAH GEOLOGICAL AND MINERAL SURVEY
Genevieve Atwood, Director
606 Black Hawk Way
Salt Lake City, Utah 84108

Plate 1
Utah Geological and Mineral Survey Map 95
Geologic Map of the Jackson Quadrangle

Mapping by authors in 1984-85
Kent D. Brown, Cartographer

Base from U.S. Geological Survey, Jackson quadrangle 1983

SCALE 1:24 000

CONTOUR INTERVAL 5 AND 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTM GRID AND 1983 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

20 ft.
5 ft. contours

UTAH
QUADRANGLE LOCATION

GEOLOGIC MAP OF THE JACKSON QUADRANGLE BOX ELDER COUNTY, UTAH

by
David M. Miller and Linda L. Glick
U.S. Geological Survey

1987

UTAH GEOLOGICAL AND MINERAL SURVEY
UTAH DEPARTMENT OF NATURAL RESOURCES
in cooperation with
THE UNITED STATES GEOLOGICAL SURVEY

Plate 2
Utah Geological and Mineral Survey Map 95
Geologic Map of the Jackson Quadrangle

CONTACT

Dotted where covered

HIGH-ANGLE FAULT

Dashed where approximately located; dotted where covered;
Bar and ball on downthrown side

LOW-ANGLE FAULT

Dashed where approximately located;
dotted where covered; sawteeth on upper plate

STRIKE AND DIP OF BEDDING

50

TRACE OF LAKE BONNEVILLE SHORELINE

P

Provo - About 4835 ft (1474m) elevation

S

Stansbury - About 4510 ft (1375m) elevation

G

Gilbert - About 4265 ft (1300m) elevation

DESCRIPTION OF MAP UNITS

Qla — Lacustrine and alluvial deposits, undivided—*Alluvium older than Lake Bonneville etched by erosional shorelines, and overlain by thin lacustrine gravel and sand deposits.*

Qaf — Alluvial fan deposits—*Unconsolidated alluvial-fan deposits of gravel, sand, and silt; colluvium included locally.*

Qal_1 — Younger Alluvium—*Unconsolidated silt, sand, and fine pebble gravel in ephemeral streams and washes, and in sheetflow deposits.*

Qes — Eolian sand—*Unconsolidated tan to light-brown, fine- to medium-grained sand and tan silt, occurring as complexes of small (2 m high) vegetated dunes or as broad sheets covering fine-grained alluvial deposits. Commonly contains detrital evaporite minerals.*

Qeo — Eolian oolitic sand—*White oolitic sand sheets and dunes reaching heights of 11 m. Clasts are predominantly spherical and elliptical ooids.*

Qai — Alluvial silt—*Unconsolidated, tan silt, clay, and fine sand generally producing hummocky topography. Desiccation features, vegetation, and black algae are common.*

Qam — Alluvial mud—*Unconsolidated clay, silt, and soluble salts in low-lying areas with characteristic development of ephemeral, low-gradient drainage systems. Deposits in the eastern half of the quadrangle include abundant salt crusts, local ooids, and sparse vegetation. Deposits in the west are covered by more vegetation (with local black algae), salt content is reduced, and no ooids occur.*

Qpm — Playa mud—*Unconsolidated clay, silt, and white soluble salts in nearly level, undrained, vegetation-free plains.*

Qal_2 — Older alluvium—*Unconsolidated silt, sand, and fine pebble gravel; locally includes silty floodplain deposits.*

Qag — Alluvial gravel—*Tightly packed, fine to coarse pebble gravel deposited in stream channels discordant with present drainages. Maximum clast size is about 3 cm. Deposits generally form narrow, sinuous ridges.*

Qlg — Lacustrine gravel and sand, undivided—*Unconsolidated gravel and sand forming shoreline deposits of Lake Bonneville. Clasts are well rounded and size-sorted, commonly with little matrix. Locally forms beachrock cemented by calcareous silt.*

Qlo — Lacustrine oolite—*Light-colored, platy, cemented calcareous oolite, generally 5 to 15 cm thick, capping brown, thin-bedded, oolitic sandstone more than 1.5 m thick.*

Qli — Lacustrine silt—*Dark-brown, unconsolidated silt and fine-grained sand overlying lacustrine mud. Supports moderate shrubs and black algae.*

Qms — Mass movement deposits—*Landslide block characterized by hummocky topography on the east side of Pigeon Mountain. Slide debris has wave-cut notches from Lake Bonneville.*

Tru — Unnamed sandstone—*Yellowish-brown calcareous siltstone and fine-grained sandstone forming slopes.*

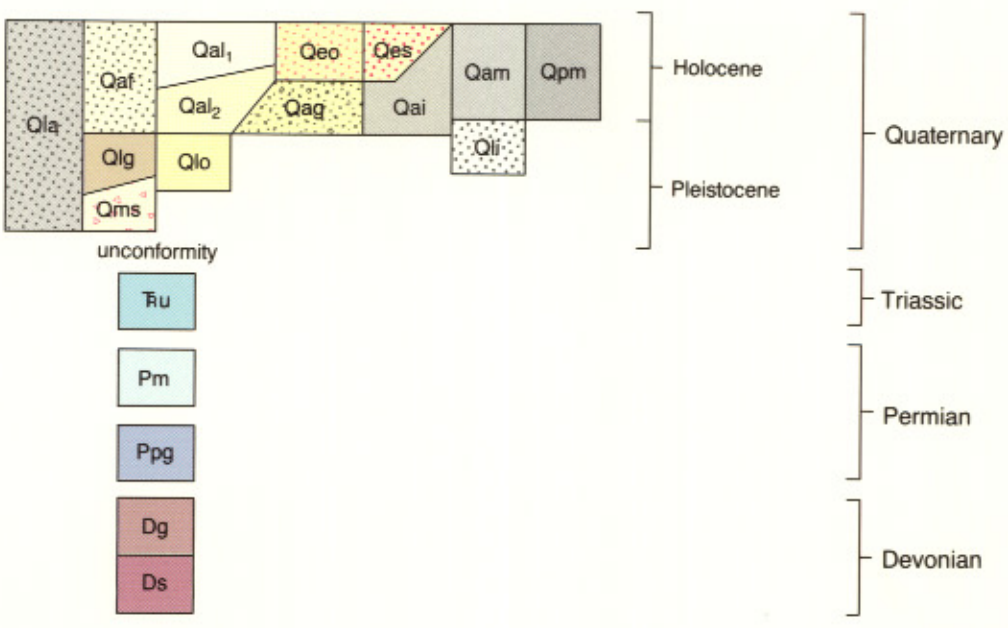
Pm — Murdock Mountain Formation—*Brown and black, thin-bedded chert, brown sandstone, and gray dolomite and dolomitic sandstone. Chert locally contains as much as 50 percent carbonate as irregular pods and stringers.*

Ppg — Grandeur Formation of the Park City Group—*Gray and brownish-gray, medium- to thick-bedded, cherty dolomite with thin interbeds of laminated sandstone and chert, rare limestone.*

Dg — Guilmette Formation—*Massive to thick-bedded, dark-gray limestone and dolomite; highly fractured.*

Ds — Simonson Dolomite—*Medium-bedded, black and gray dolomite. Some beds laminated.*

CORRELATION OF MAP UNITS



FORMATION	SYMBOL	THICKNESS feet (meters)	LITHOLOGY
Unnamed sandstone	Tru	300 (90)	
Murdock Mountain Formation	Pm	330 (100)	
Grandeur Formation	Ppg	345 (105)	
Guilmette Formation	Dg	990 (300)	
Simonson Dolomite	Ds	285 (85)	

Ppm — Meade Peak Phosphatic Shale Tongue of the Phosphoria Formation—*Black and brown, fissile shale and siltstone with subordinate interbedded dolomite and sandstone.*